UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,982	06/29/2001	Peter L. Doyle	219.40022X00	6160

7590 03/18/2004	EXAMINER
Blakely Sokoloff Taylor & Zafman LLP	MONESTIME, MACKLY

ART UNIT	PAPER NUMBER
2676	

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DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	**Applicant(s)**
Office Action Summary	09/893,982	DOYLE, PETER L.
	Examiner	**Art Unit**	
	Mackly Monestime	2676	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 January 2004</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response to Amendment

1.   The amendment received on January 5, 2004 has entered and carefully considered.

Claims 1-24 are still pending in the application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devic et al

(US Patent No. 6,054,993) in view Shirman et al (US Patent No. 5,50,960).

4.   Devic et al was cited in the last office action.

5.   As per claims 1-2, 8-9, 17 and 22, Devic et al substantially disclosed the invention as

claimed, including a computer system comprising: a memory device to store a plurality of

texture coordinates associated with vertices of three dimensional objects (Fig. 3; Item No. 104;

col. 1, lines 31-44; lines 53-55; col. 4, lines 37-39), a graphics device to couple to said memory

device and to process internal coordinates for display (Fig. 3; Item No. 104, 114 and 120); and a

mapping system to appropriately route select ones of said plurality texture coordinates from said

memory device to said graphics device (Fig. 4, Item No. 126).

Devic et al did not explicitly disclose a logical binding that is provided between the

internal texture coordinate sets used by the graphics device and plurality of texture coordinates

associated with vertices of three dimensional objects. However, Shirman et al disclosed a method

and apparatus for performing dynamic texture mapping for complex surfaces in which a binding

processes is performed to define the correspondence of the texture coordinates to the object

coordinates, wherein the binding process binds the coordinates of the texture map in texture

coordinate space (e.g., u, v coordinates) to predetermined coordinates of the object in modeling

coordinate space (e.g., x, y, z, w coordinates) (Fig. 2; col. 1, lines 18-23; col. 4, lines 36-40).

Therefore, taking the combined teachings of Devic et al and Shirman et al as a whole, it would

have been obvious to a person of ordinary skill in the art at the time the invention was made to

have combined the cited references because doing so would provide very useful quality measures

and dynamic texturing for splines by separating the parameter coordinate space at the texture

coordinate space.

6.   As per claim 3, Devic et al disclosed said graphics device comprises a plurality of

mapping engines each to process a separate one of said internal texture coordinate (Fig. 4, Item

No. 126; Fig. 7, Item No. 70; col. 8, lines 7-12; lines 56-60).

7.   As per claims 4-5, 7, 10-11, 19-20 and 24, Devic et al disclosed said graphics device

comprises a plurality of registers; each corresponding to a separate one of said plurality of

mapping engines (col. 9, lines 27-30; col. 10, lines 31-35).

8.   As per claims 13 and 16, Devic et al substantially disclosed the invention as claimed,

including as claimed, including a graphics device for creating an image base on internal texture

coordinates received from a memory device (Fig. 3; Item No. 104, 114 and 120), said graphic

device including a plurality of mapping engines (Fig. 4, Item No. 126; Fig. 7, Item No. 70; col.

8, lines 7-12; lines 56-60) and a plurality of registers, each register corresponding to a source of

texture coordinate values for one of said mapping engine (col. 9, lines 27-30; col. 10, lines 31-35).

Devic et al did not explicitly disclose a logical binding that is provided between the internal texture coordinate sets used by the graphics device and plurality of texture coordinates associated with vertices of three dimensional objects. However, Shirman et al disclosed a method and apparatus for performing dynamic texture mapping for complex surfaces in which a binding processes is performed to define the correspondence of the texture coordinates to the object coordinates, wherein the binding process binds the coordinates of the texture map in texture coordinate space (e.g., u, v coordinates) to predetermined coordinates of the object in modeling coordinate space (e.g., x, y, z, w coordinates) (Fig. 2; col. 1, lines 18-23; col. 4, lines 36-40). Therefore, taking the combined teachings of Devic et al and Shirman et al as a whole, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined the cited references because doing so would provide very useful quality measures and dynamic texturing for splines by separating the parameter coordinate space at the texture coordinate space.

9.   As per claim 14, Devic et al disclosed a display device to display said image based on an output of said graphics device (Fig. 3; Item No. 104, 114).

10.   As per claims 6, 11, 15, 18, 21 and 23, Devic et al did not explicitly disclose: a default and one of said plurality of said texture coordinates in said memory device; to select ones of said plurality of said texture coordinates are transferred from said memory device to said mapping engines without transferring unselected ones of said plurality of texture coordinates. However, the concepts and associated advantages of having a default in computer system is well known in

the art. Thus, default is an alternative value or option that is assumed when none has been

specified; or it is implicit option that is assumed when no option is explicitly stated, or it is some

parameter values supplied by a computer system when no explicit values are provided by a

program; or it is a choice among exclusive alternatives made by the system when no explicit

choice is specified by a user. Therefore, "official notice" has taken by the examiner that the use

of a default in computer system is well known in the art.

Response to Arguments

Applicant's arguments with respect to claim have been considered but are moot in view

of the new ground(s) of rejection.

Conclusion

Applicant is required to give full consideration to these prior art references when

responding to this office action.

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Migdal et al (US Patent No. 6,392,655) taught a fine grain multi-pass for multiple texture

rendering.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mackly Monestime whose telephone number is (703) 305-3855. The examiner can normally be reached on Monday to Thursday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bella Matthew, can be reached on (703) 308-6829.

Any response to this action should be mailed to:

Commissioner of Patent and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Mackly Monestime
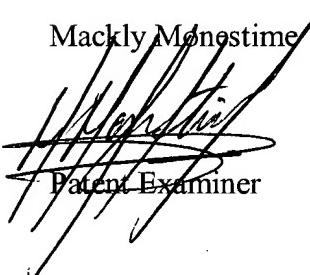
Patent Examiner
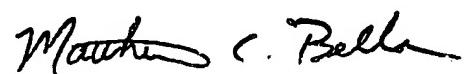
MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

March 9, 2004